

AMENDMENT TO THE CLAIMS

Please replace the currently pending claims with the following:

1. (Currently Amended) A thin-film transistor array of pixels comprising:
a first thin-film transistor including a channel formed in a spiral pattern, the channel defined by a region between a first electrode and a second electrode, the channel having a defined length and width;
a gate line coupled to a gate electrode of the first thin film transistor;
a first data line coupled to a source electrode of the first thin film transistor;
a drain electrode of the thin-film transistor directly coupled to the display or sensing media;
a pixel addressed by the first thin-film transistor, the pixel having two pixel dimensions including a pixel width and a pixel length, the channel width longer than the shorter of the two pixel dimensions.
2. (Original) The thin-film transistor array of claim 1 wherein the ratio of the channel width to the channel length exceeds 5.
3. (Original) The thin film transistor array of claim 1 wherein the pixel width is equal to the pixel length.
4. (Currently Amended) The thin film transistor array of claim 1 wherein the channel includes at least ~~one~~ four sequential bends in the same direction.
5. (Currently Amended) The thin film transistor array of claim 1 wherein the channel includes at least ~~two~~ six bends sequentially and in the same direction such that

a section of the channel forms an almost concentric pattern an electrode is surrounded on three sides by the channel in a U configuration.

6. (Withdrawn) The thin film transistor array of claim 1 wherein the channel completely surrounds one electrode.

7. (Currently Amended) The thin-film transistor array of claim 1 wherein a semiconductor used to form the channel in the first thin-film transistor is an organic semiconductor.

8. (Currently Amended) The thin-film transistor array of claim 1 wherein a semiconductor used to form the channel in the first thin-film transistor is a polymeric semiconductor.

9. (Withdrawn) The thin-film transistor array of claim 1 wherein the semiconductor is a continuous film over the array.

10. (Cancelled)

11. (Original) The thin-film transistor array of claim 1 wherein the pixel is backlit liquid crystal material.

12. (Currently Amended) The thin-film transistor array of claim 1 further comprising:

a second thin film transistor including a corresponding gate electrode coupled to the gate line.

13. (Original) The thin film transistor array of claim 1 wherein the channel surrounds a drain electrode.

14. (Original) The thin film transistor array of claim 1 wherein the channel includes a first side and a second side, the first side of the channel coupled to the first electrode, the second side of the channel coupled to the second electrode.

15. (Original) The thin film transistor array of claim 1 wherein the first electrode is a drain and the second electrode is a source.

16. (Original) The thin film transistor of claim 14 wherein the channel includes a top surface, the top surface couples to a third electrode.

17. (Original) The thin film transistor of claim 16 wherein the third electrode is a gate.

18. (Withdrawn) The thin-film transistor array of claim 1 wherein the channel completely surrounds a source electrode.

19. (Cancelled)

20. (Previously Presented) The thin-film transistor array of claim 1 further comprising:

a second thin film transistor to address a second pixel, the first data line coupled to a source electrode of the second thin film transistor.

21. (Original) The thin film transistor array of claim 20 further comprising:
a second pixel addressed by the second thin film transistor, the second pixel having two dimensions including a second pixel length and a second pixel width, a channel width of the second thin film transistor greater than the smallest dimension of the second pixel.
22. (Currently Amended) The thin-film transistor array of claim 1 wherein the mobility of a semiconductor used to form a channel of the thin film transistor is below $0.5 \text{ cm}^2/\text{Volt}\text{-second}$.
23. (Previously Presented) The thin-film transistor array of claim 1 further comprising:
a second gate line coupled to a gate of a second thin-film transistor, the second-thin film transistor coupled to a second pixel; and,
a third gate line coupled to a gate electrode of a third thin-film transistor, the third-thin film transistor coupled to a third pixel.
24. (Original) The thin-film transistor array of claim 23 further comprising:
a drive circuit coupled to corresponding gate lines of each thin-film transistor, the drive circuit to switch each thin-film transistor to create a pattern in a display.
25. (Original) The thin-film transistor array of claim 23 further comprising:
a sensing circuit coupled to each gate line to sense the output of each thin-film transistor in a sensor system.
26. (Original) The thin film transistor array of claim 1 wherein the channel width to length ratio exceeds 50.

27 – 32 (Cancelled)

33. (Previously Presented) The thin film transistor array of pixels of claim 1 further comprising:

an encapsulation layer deposited between a media layer and the drain electrode, vias etched in the encapsulation layer couple the media layer to the drain electrode.